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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,997	04/20/2004	David W. Caldwell	37041-11481	6796
2574	7590	11/01/2006	EXAMINER	
JENNER & BLOCK, LLP ONE IBM PLAZA CHICAGO, IL 60611			ARBES, CARL J	
			ART UNIT	PAPER NUMBER
			3729	

DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/828,997

Applicant(s)

CALDWELL ET AL.

Examiner

C. J. Arbes

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 and 26-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 13-16, 19, 26-43 is/are rejected.
- 7) ☒ Claim(s) 7-12, 17, 18 and 44 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

The Office holds Applicants' **Remarks**, filed on or about 11 September 2006 in abeyance in favor the **non-Final** Office Action provided hereinafter.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 35-43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants recite in claim 35 ...directly or in connection with an intermediary layer between said layer of a first conductive material ... and further in the same claim ...either directly or in connection with an interfacial layer between said layer of a second and... . Applicants are not clear as to whether the "intermediary layer" is the same layer as the "interfacial layer" and therefore it would be appropriate that Applicants clarify this issue. If these two term "intermediate" and "interfacial" are not substantially equivalent Applicants would be well advised to carefully explain the differences.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Barraclough (Pat. No. 3,864,180); hereinafter Barraclough.

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This teaching speaks for itself. However in order to further explain how the Office construes the teaching what follows is germane.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-6, 13-16, 19, 26-35, 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barraclough, Pat. No. 3,864,180; hereinafter Barraclough.. Barraclough teaches a process for forming thin-film circuit device wherein a substrate is covered with a thin-film layer of material having electrical characteristics corresponding to the circuit device, which is covered by an intermediate (or first) conductive material which in turn is covered by a second conductive material. (Cf. Abstract) The second conductive layer is etched to form a cavity above the intermediate layer. Subsequently the intermediate conductive and the thin-film layers are selectively etched. The etchants used for the different conductive layers are different (Cf. Col 3). It would have been obvious to use copper for the conductive metal particular when one wishes to solder an electrical component with the rationale being the fact that copper is relatively cheap and also has excellent soldering characteristics and electrical conductivity. As applied to claims 5 and 6 it would have been obvious that if one were soldering an electrical component to the circuit that the component would be electrically connected to the second conductive material inasmuch as this would be expedient and practical. As applied to claims 13 and 14 it is held to be old and hence obvious to deposit at least one

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of the conductive materials be a vacuum means. In fact Hatano et al do teach sputtering or electron beam evaporation of a noble metal onto a transparent substrate. As applied to claims 29-31, 39 and 40 if indeed Barraclough does not expressly teach the specific limitations in these dependent claims nevertheless it would have been obvious to e.g. etch the second conductive layer at a rate which is slower than that of a first rate (in order to properly provide the electrical circuit.

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barraclough in view of Japan Pat No. 03-221922, by Hatano et al(of record) or vice versa. The Barraclough teaching has been provided hereinabove and is not repeated. The Hatano et al teaching has been provided in a previous Office action and also is not repeated. It would have been obvious to combine the two teachings and to construct a display device by providing by, for example sputtering a driving circuit (i.e. first conductive material) and a transparent film (comprising an InSnO(sub 2).

Claims 7-12, 17, 18 and 44 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. J. Arbes whose telephone number is 571-272-4563. The examiner can normally be reached on M, T, R and F from 8 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, P. Vo, can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



C. J. Arbes
Primary Examiner
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